

Weston Solutions, Inc. 1435 Garrison Street Suite 100 Lakewood, CO 80215 303-729-6100 Fax 303-729-6101 www.westonsolutions.com

12 January 2017

Don Goodrich U.S. EPA, Region 8 1595 Wynkoop St Denver, CO 80202

RE: Bonita Peak DV ESAT A-119 TDD 0004/1612-03

Dear Mr. Goodrich:

Please find attached the data validation report for Sample Delivery Groups C161101 and C161105 for the Bonita Peak site. This report has been prepared by START chemists in accordance with TDD 1612-03.

If you have any questions or require additional information, please contact me by phone at 303-729-6124 or by email at natalie.quiet@westonsolutions.com.

Very truly yours,

WESTON SOLUTIONS, INC.

Natalie Quiet Project Manager

Enclosures: Data Validation Report



DATA VALIDATION REPORT

Bonita Peak DV ESAT A-119

SAMPLE DELIVERY GROUP: C161101

Prepared by

MEC^X 12269 East Vassar Drive Aurora, CO 80014



Project: Bonita Peak DV ESAT A-119

SDG: C161101

I. INTRODUCTION

Task Order Title: Bonita Peak DV ESAT A-119

Contract Task Order: 20408.012.004.0433.00

Sample Delivery Group: C161101
Weston Project Manager: Natalie Quiet
EPA Project Manager: Don Goodrich

TDD No.: 0004/1612-03 Case No.: ESAT TDF A-119

Matrix: Water QC Level: Stage 2B

No. of Samples: 3 No. of Reanalyses/Dilutions: 0

Laboratory: ESAT

Table 1. Sample Identification

Location ID	Sample No.	Lab Sample	Matrix	Collection Date	Method
		Name	Туре		
CC29B	A83-2643	C161101-01	Water	10/20/2016 1:00:00 PM	200.7, 200.8
CC29B	A83-2643	C161101-02	Water	10/20/2016 1:00:00 PM	200.7, 200.8, 2340B
CC29B	A83-2643	C161101-03	Water	10/20/2016 1:00:00 PM	300.0, 310.1

It should be noted that the reviewer used laboratory sample names to identify specific sample fractions in this report.

II. Sample Management

The samples were received within the temperature limits of >0°C to <6°C. According to the Sample Receipt Form (SRF) the samples were received intact and properly preserved. The chains of custody (COC) were signed and dated by field and/or laboratory personnel. The samples were logged in the by laboratory with unique laboratory ID for the total and dissolved metals, and wet chemistry analyses. Custody seals were absent; the SRF indicated that the samples were "dropped off."

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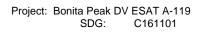


Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+	Not applicable	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample, and may have a potential positive bias.
J-	Not applicable	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample, and may have a potential negative bias.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.



Qualifier	Organics	Inorganics
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.





Qualification Code Reference Table

Qualifier	Organics	Inorganics
Н	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
С	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995 or calibration was noncompliant.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
В	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
L1	LCS/LCSD RPD was outside control limits.	LCS/LCSD RPD was outside control limits.
Q	MS/MSD recovery was poor.	MS recovery was poor.
Q1	MS/MSD RPD was outside control limits.	MS/MSD RPD was outside control limits.
Ε	Not applicable.	Duplicates showed poor agreement.
1	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
Α	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	ICPMS tune was not compliant.
Т	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
F1	Field duplicate results were outside the control limit.	Field duplicate results were outside the control limit.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.



Qualifier	Organics	Inorganics
D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
Р	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
* , *	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.



III. Method Analyses

A. Methods 200.7, 200.8, and 2340B—Metals and Hardness

Reviewed By: M. Hilchey

Date Reviewed: January 6, 2017

The samples listed in Table 1 for these analyses were validated based on the guidelines outlined in the Quality Assurance Project Plan for U. S. EPA Region 8 CERCLA Site Assessment (Rev. 2015); United States Environmental Protection Agency Method 200.7, 200.8 and 2340B; and the National Functional Guidelines for Inorganic Superfund Data Review (2014).

- Holding Times: The analytical holding time, six months for metals, was met.
- Instrument tune: All ICPMS tuning requirements were met.
- Calibration: The initial calibration summaries indicated that the method calibration criteria were met. Initial (ICV) and continuing calibration (CCV) frequency requirements were met. ICV and CCV recoveries were within 90-110%. The reporting limit check standards met laboratory recovery limits.
- Method Blanks: No target analytes were reported in the method blanks or calibration blanks.
- Interference Check Samples (ICSA/B): ICSA/B results are not evaluated at a Stage 2B validation.
- Laboratory Control Samples (LCS): The LCS recoveries were within the laboratory control limits for all target analytes.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on samples C161101-01 and C161101-02 for Methods 200.7 and 200.8. All RPDs met the laboratory control limit of ≤20% for sample results <5x RL.
- Matrix Spike: Matrix spike analyses were performed on samples C161101-01 and C161101-02 for Methods 200.7 and 200.8. Recoveries were not assessed when the parent sample concentrations were more than 4× the spike amount. Recoveries for all target analytes met laboratory control limits of 70-130%.
- Post Digestion Spike: Post digestion spike analyses were not reported.
- Serial Dilution: Serial dilution analysis was performed on samples C161101-01 and C161101-02 for Methods 200.7 and 200.8. Results were not assessed unless the parent sample concentration was >50× the MDL. The control limit of ≤10% difference (%D) of the original sample results was met for all applicable target analytes.
- Internal Standards: All site sample ICPMS internal standard (IS) intensities were within 60-125% of the response in the calibration blank for reported target analytes.
- Sample Result Verification: Analyte quantification was not verified at a Stage 2B validation. Detects below the reporting limit were qualified as estimated (J). Nondetects are valid to the RL.



All samples were diluted 5x for total ICPMS analysis. Detected results for dilutions were flagged with "D" by the laboratory. Reporting limits were adjusted accordingly.

- Field QC Samples: MEC^X evaluated field QC samples, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. MEC^X used the remaining detects to evaluate the associated site samples. Findings associated with field QC samples are summarized below.
 - o Field Blanks and Equipment Blanks: No samples were identified as field or equipment blanks in this SDG
 - o Field Duplicates: No samples were identified as field duplicates in this SDG.

B. METHODS 300.0 and 310.0-Anions and Total Alkalinity

Reviewed By: M. Hilchey

Date Reviewed: January 6, 2017

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the *Quality* Assurance Project Plan for U. S. EPA Region 8 CERCLA Site Assessment (Rev. 2015); United States Environmental Protection Agency Methods 300.0 and 310.1; and the National Functional Guidelines for Inorganic Superfund Data Review (2014).

- Holding Times: The analytical holding times, as listed below, were met.
 - o Anions (300.0) 28 days
 - o Total Alkalinity (310.1) 14 days
- Calibration: The initial calibration summaries indicated that the method calibration criteria were met. Initial (ICV) and continuing calibration (CCV) frequency requirements were met. ICV and CCV recoveries were within 90-110%.
- Blanks: No target analytes were reported in the method blanks or calibration blanks.
- Laboratory Control Samples (LCS): The LCS recoveries were within the laboratory control limits for all target analytes.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on sample C161101-03 for both methods. All RPDs met the laboratory control limit of ≤20% for sample results <5x RL.
- Matrix Spike/Matrix Spike Duplicate: Matrix spike analysis was performed on sample C161101-03 for Method 300.0, anions. Recoveries for all target analytes met laboratory control limits.
- Sample Result Verification: Analyte quantification was not verified at a Stage 2B validation.
 Nondetects are valid to the RL.
 - The sample was diluted for fluoride and sulfate analysis. Detected results for dilutions were flagged with "D" by the laboratory. Reporting limits were appropriately adjusted.

Project: Bonita Peak DV ESAT A-119

SDG: C161101

• Field QC Samples: MEC^X evaluated field QC samples, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. MEC^X used the remaining detects to evaluate the associated site sample. Findings associated with field QC samples are summarized below.

- Field Blanks and Equipment Rinsates: No samples were identified as field or equipment blanks in this SDG.
- o Field Duplicates: No samples were identified as field duplicates in this SDG.

Validated Sample Result Forms C161101

Analysis Method DM-Hardness - Calculated

Lab Sample Name: C161101-02 **Sample No:** A83-2643 **Sample Date:** 10/20/2016 1:00:00 PM

Location CC29B Matrix Type: Water

Analyte CAS No Result Sample Sample Result Lab Validation Validation

Value Adjusted Adjusted Units Qualifier Notes

CRQL MDL

Hardness NA 584 2 2 mg/L

Analysis Method ICPMS Diss. Metals

Lab Sample Name: C161101-02 **Sample No:** A83-2643 **Sample Date:** 10/20/2016 1:00:00 PM

Location CC29B Matrix Type: Water

	V E									
Analyte	CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes		
Antimony	7440-36-0	< 5.00	5.00	2.50	ug/L	U	U			
Arsenic	7440-38-2	4.19	10.0	2.50	ug/L	JD	J			
Cadmium	7440-43-9	1.35	1.00	0.500	ug/L	D				
Chromium	7440-47-3	<10.0	10.0	5.00	ug/L	U	U			
Copper	7440-50-8	26.4	5.00	2.50	ug/L	D				
Lead	7439-92-1	<1.00	1.00	0.500	ug/L	U	U			
Nickel	7440-02-0	14.2	5.00	2.50	ug/L	D				
Selenium	7782-49-2	<10.0	10.0	5.00	ug/L	U	U			
Silver	7440-22-4	< 5.00	5.00	2.50	ug/L	U	U			
Thallium	7440-28-0	<10.0	10.0	5.00	ug/L	U	U			

Analysis Method ICPMS Tot. Rec. Metals

Lab Sample Name: C161101-01 **Sample No:** A83-2643 **Sample Date:** 10/20/2016 1:00:00 PM

Location CC29B Matrix Type: Water

	Willia Type.									
Analyte	CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes		
Antimony	7440-36-0	< 5.00	5.00	2.50	ug/L	U	U			
Arsenic	7440-38-2	5.92	10.0	2.50	ug/L	JD	J			
Cadmium	7440-43-9	1.32	1.00	0.500	ug/L	D				
Chromium	7440-47-3	<10.0	10.0	5.00	ug/L	U	U			
Copper	7440-50-8	27.3	5.00	2.50	ug/L	D				
Lead	7439-92-1	<1.00	1.00	0.500	ug/L	U	U			
Nickel	7440-02-0	9.13	5.00	2.50	ug/L	D				
Selenium	7782-49-2	<10.0	10.0	5.00	ug/L	U	U			
Silver	7440-22-4	< 5.00	5.00	2.50	ug/L	U	U			
Thallium	7440-28-0	<10.0	10.0	5.00	ug/L	U	U			

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Analysis Method ICPOE Diss. Metals

Lab Sample Name: C161101-02 **Sample No:** A83-2643 **Sample Date:** 10/20/2016 1:00:00 PM

Location CC29B **Matrix Type:** Water

Analyte	CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Aluminum	7429-90-5	2060	50.0	20.0	ug/L			
Beryllium	7440-41-7	< 5.00	5.00	2.00	ug/L	U	U	
Calcium	7440-70-2	208000	250	100	ug/L			
Iron	7439-89-6	32400	250	100	ug/L			
Magnesium	7439-95-4	15600	250	100	ug/L			
Manganese	7439-96-5	4210	5.00	2.00	ug/L			
Silica (SiO2)	763-18-69	46500	1000	250	ug/L			
Strontium	7440-24-6	1330	10.0	2.00	ug/L			
Zinc	7440-66-6	954	20.0	10.0	ug/L			

Analysis Method ICPOE Tot. Rec. Metals

Lab Sample Name: C161101-01 **Sample No:** A83-2643 **Sample Date:** 10/20/2016 1:00:00 PM

Location CC29B Matrix Type: Water

Analyte	CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	7429-90-5	2080	50.0	20.0	ug/L			
Beryllium	7440-41-7	< 5.00	5.00	2.00	ug/L	U	U	
Calcium	7440-70-2	208000	250	100	ug/L			
Iron	7439-89-6	34900	250	100	ug/L			
Magnesium	7439-95-4	15700	250	100	ug/L			
Manganese	7439-96-5	4220	5.00	2.00	ug/L			
Silica (SiO2)	763-18-69	46600	1000	250	ug/L			
Strontium	7440-24-6	1380	10.0	2.00	ug/L			
Zinc	7440-66-6	920	20.0	10.0	ug/L			

Analysis Method WC - Alkalinity

Lab Sample Name: C161101-03 **Sample No:** A83-2643 **Sample Date:** 10/20/2016 1:00:00 PM

Location CC29B Matrix Type: Water

CAS No Analyte Result Sample Sample Result Lab Validation Validation Value Adjusted Adjusted Units Qualifier Qualifier **Notes CRQL MDL** NA Total Alkalinity <10.0 10.0 5.00 mg CaC

Analysis Method WC - Anions by Ion Chroma

Lab Sample Name: C161101-03 **Sample No:** A83-2643 **Sample Date:** 10/20/2016 1:00:00 PM

Location CC29B Matrix Type: Water

CAS No Analyte Result Sample Sample Result Lab Validation Validation Value Adjusted Adjusted Units Qualifier Qualifier **Notes** MDL **CRQL** Chloride 16887-00-6 <3.2 3.2 1.6 mg/L U U Fluoride 16984-48-8 0.4 1.6 0.8 mg/L D 0.8 Nitrate/Nitrite as N NA < 0.8 0.4 mg/L U

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Analysis Method WC - Anions by Ion Chroma

Sulfate as SO4 148-08-798 688 8.0 4.0 mg/L D

Thursday, January 12, 2017 Page 3 of 3



DATA VALIDATION REPORT

Bonita Peak DV ESAT A-119

SAMPLE DELIVERY GROUP: C161105

Prepared by

MEC^X 12269 East Vassar Drive Aurora, CO 80014



I. INTRODUCTION

Task Order Title: Bonita Peak DV ESAT A-119

Contract Task Order: 20408.012.004.0433.00

Sample Delivery Group: C161105
Weston Project Manager: Natalie Quiet
EPA Project Manager: Don Goodrich

TDD No.: 0004/1612-03 Case No.: ESAT TDF A-119

Matrix: Solid QC Level: Stage 2B

No. of Samples: 21
No. of Reanalyses/Dilutions: 0

Laboratory: ESAT

Table 1. Sample Identification

Location ID	Sample No.	Lab Sample Name	Matrix Type	Collection Date	Method
A34	A8M5-2643	C161105-01	Solid	9/27/2016 10:00:00 AM	200.7, 200.8, 7473
A41A	A8M5-2644	C161105-02	Solid	9/29/2016 8:30:00 AM	200.7, 200.8, 7473
A68	A8M5-2645	C161105-03	Solid	9/27/2016 10:25:00 AM	200.7, 200.8, 7473
CC18B	A8M5-2646	C161105-04	Solid	9/29/2016 2:15:00 PM	200.7, 200.8, 7473
CC21D	A8M5-2647	C161105-05	Solid	9/28/2016 5:10:00 PM	200.7, 200.8, 7473
CC24C	A8M5-2648	C161105-06	Solid	9/29/2016 12:00:00 PM	200.7, 200.8, 7473
CC25	A8M5-2649	C161105-07	Solid	9/29/2016 9:15:00 AM	200.7, 200.8, 7473
CC26	A8M5-2650	C161105-08	Solid	9/28/2016 4:20:00 PM	200.7, 200.8, 7473
CC38	A8M5-2651	C161105-09	Solid	9/28/2016 8:48:00 AM	200.7, 200.8, 7473
CC38D	A8M5-2652	C161105-10	Solid	9/28/2016 10:40:00 AM	200.7, 200.8, 7473
EG2	A8M5-2653	C161105-11	Solid	9/29/2016 4:00:00 PM	200.7, 200.8, 7473
EG2A	A8M5-2654	C161105-12	Solid	9/29/2016 3:30:00 PM	200.7, 200.8, 7473
EG3A	A8M5-2655	C161105-13	Solid	9/29/2016 1:00:00 PM	200.7, 200.8, 7473
EG5	A8M5-2656	C161105-14	Solid	9/28/2016 4:15:00 PM	200.7, 200.8, 7473
M12	A8M5-2657	C161105-15	Solid	9/29/2016 4:35:00 PM	200.7, 200.8, 7473
M14	A8M5-2658	C161105-16	Solid	9/28/2016 4:30:00 PM	200.7, 200.8, 7473
M24D	A8M5-2659	C161105-17	Solid	9/27/2016 5:30:00 PM	200.7, 200.8, 7473
M25	A8M5-2660	C161105-18	Solid	9/27/2016 5:00:00 PM	200.7, 200.8, 7473
M26B	A8M5-2661	C161105-19	Solid	9/28/2016 9:35:00 AM	200.7, 200.8, 7473
M27	A8M5-2662	C161105-20	Solid	9/27/2016 3:00:00 PM	200.7, 200.8, 7473
PWMLP1	A8M5-2663	C161105-21	Solid	9/28/2016 2:15:00 PM	200.7, 200.8, 7473

It should be noted that the reviewer used laboratory sample names to identify specific sample fractions in this report.



Project: Bonita Peak DV ESAT A-119

SDG: C161105

II. Sample Management

According to the Sample Receipt Form (SRF) in SDG C161003 (identified by the client as applicable to this SDG), the samples were received within the temperature limits of >0°C to <6°C, and were received intact and properly preserved. The chain of custody (COC) was signed and dated by field and/or laboratory personnel. Custody seals were absent; the SRF indicated that the samples were "dropped off."

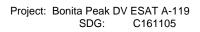


Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+	Not applicable	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample, and may have a potential positive bias.
J-	Not applicable	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample, and may have a potential negative bias.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.



Qualifier	Organics	Inorganics
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.





Qualification Code Reference Table

Qualifier	Organics	Inorganics
Н	Holding times were exceeded.	Holding times were exceeded.
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С	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995 or calibration was noncompliant.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
В	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
L1	LCS/LCSD RPD was outside control limits.	LCS/LCSD RPD was outside control limits.
Q	MS/MSD recovery was poor.	MS recovery was poor.
Q1	MS/MSD RPD was outside control limits.	MS/MSD RPD was outside control limits.
Е	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
Α	Not applicable.	ICP Serial Dilution %D were not within control limits.
М	Tuning (BFB or DFTPP) was noncompliant.	ICPMS tune was not compliant.
Т	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
F1	Field duplicate results were outside the control limit.	Field duplicate results were outside the control limit.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
,	TIC identity or reported retention time has been changed.	Not applicable.



Qualifier	Organics	Inorganics
D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
Р	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
* , *	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.



III. Method Analyses

A. Methods 200.7, 200.8, 7473 and 2340B—Metals, Mercury and Hardness

Reviewed By: M. Hilchey

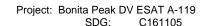
Date Reviewed: January 6, 2017

The samples listed in Table 1 for these analyses were validated based on the guidelines outlined in the Quality Assurance Project Plan for U. S. EPA Region 8 CERCLA Site Assessment (Rev. 2015); United States Environmental Protection Agency Method 200.7, 200.8, 7473 and SM2340B; and the National Functional Guidelines for Inorganic Superfund Data Review (2014).

- Holding Times: The analytical holding times, 28 days for mercury and six months for the remaining metals, were met with the following exception. All samples were analyzed past the required holding time but within 2x the requirement for mercury. Results for mercury were qualified as estimated with low potential bias (J-).
- Instrument tune: All ICPMS tuning requirements were met.
- Calibration: The initial calibration summaries indicated that the method calibration criteria were met. Initial (ICV) and continuing calibration (CCV) verification frequency requirements were met. ICV and CCV recoveries were within 90-110% for Methods 200.7 and 200.8 and within 85-115% for Method 7473 with the exception noted in the table below. Results for associated samples were qualified as estimated with high potential bias (J+); however, the bias was removed due to the conflict with the holding time negative bias (See Section: Holding Times). The reporting limit check standards met laboratory recovery limits.

Analyte	CCV recovery	Qualified Samples
mercury	115.3%	All site samples except C161105-01, C161105-08, C161105-20, C161105-21

- Method Blanks: No target analytes were reported in the method blanks or calibration blanks of sufficient concentration to qualify site sample results.
- Interference Check Samples (ICSA/B): ICSA/B results are not evaluated at a Stage 2B validation.
- Laboratory Control Samples (LCS): The LCS recoveries were within the laboratory control limits for all target analytes.
- Laboratory Duplicates Laboratory duplicate analyses were performed on samples C161105-01 and C161105-12 for Methods 200.7 and 200.8, and on samples C161105-01 and C161105-08 for Method 7473. All RPDs met the laboratory control limits.
- Matrix Spike: Matrix spike analyses were performed on samples C161105-01, C161105-02 and C161105-12 for Methods 200.7 and 200.8. Matrix spike/matrix spike duplicate analyses were





performed on samples C161105-01 and C161105-08 for Method 7473. Recoveries were not assessed when the parent sample concentrations were more than 4× the spike amount. Recoveries for all target analytes met laboratory control limits of 70-130% except as noted in the table below. Detected antimony results of all samples were qualified as estimated with low potential bias (J-). Nondetect antimony results of all samples were qualified as rejected (R) since all nondetects were associated with a recovery <30%. MS/MSD RPDs for Method 7473 were ≤20%.

Analyte	Matrix spike recovery	Parent sample
	42%	C161105-01
antimony	53%	C161105-02
	26%	C161105-12

- Post Digestion Spike: Post digestion spike analyses were not reported.
- Serial Dilution: Serial dilution analysis was performed on samples C161105-01 and 161105-12 for Methods 200.7 and 200.8. Results were not assessed unless the parent sample concentration was >50× the MDL. The control limit of ≤10% difference of the original sample results was met for all target analytes with the exception of nickel (17%) in sample C161105-01. Nickel results for all site samples except C161105-12 (which had a passing %D) were qualified as estimated (J).
- Internal Standards: All site sample ICPMS internal standard (IS) intensities were within 60-125% of the response in the calibration blank for reported target analytes. The IS intensity for germanium-72 in sample C161105-04 was 125.1%. Based on professional judgment, this value rounds down to meet the control limit; therefore, no qualifications were applied.
- Sample Result Verification: Analyte quantification was not verified at a Stage 2B validation. Detects below the reporting limit were qualified as estimated (J). Nondetects are valid to the RL.

All samples were diluted 10x for Methods 200.7 and 200.8. Detected results for additional dilutions were flagged with "D" by the laboratory. Reporting limits were adjusted accordingly.

It should be noted that the laboratory used the "D" flag for all detected mercury results, but the data included no indication of dilution for mercury in any samples.

It should be noted that the result for mercury in sample C161105-01 exceeded the high calibration standard. The result was flagged "E" by the laboratory and the result was flagged as estimated by the reviewer with the bias for the holding time removed as it was unclear how the exceedance of the instrument linear range affected the sample result bias.

- Field QC Samples: MEC^X evaluated field QC samples, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. MEC^X used the remaining detects to evaluate the associated site samples. Findings associated with field QC samples are summarized below.
 - o Field Blanks and Equipment Blanks: No samples were identified as field or equipment blanks in this SDG

o Field Duplicates: No samples were identified as field duplicates in this SDG

Validated Sample Result Forms C161105

Analysis Metho Lab Sample Name:	C161105-01	Sampl	e No: A8M5	-2643		Sample Da	ate: 9/27/2	016 10:00:00 A	ΑM
Location	A34	•			Matrix Ty	_			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units	Lab	Validation Qualifier	Validation Notes
Antimony		7440-36-0	6820	1010	503	ug/kg d	ry D	J-	Q
Arsenic		7440-38-2	28500	2010	503	ug/kg d	ry D		
Cadmium		7440-43-9	20200	201	101	ug/kg d	ry D		
Chromium		7440-47-3	9270	2010	1010	ug/kg d	ry D		
Copper		7440-50-8	612000	1010	503	ug/kg d	ry D		
Lead		7439-92-1	5550000	201	101	ug/kg d	ry D		
Nickel		7440-02-0	13200	1010	503	ug/kg d	ry JD	J	A
Selenium		7782-49-2	1070	2010	1010	ug/kg d	ry JD	J	
Silver		7440-22-4	20200	1010	503	ug/kg d	ry D		
Гhallium		7440-28-0	<2010	2010	1010	ug/kg d		U	
Lab Sample Name:	C161105-02	Sampl	e No: A8M5	-2644		Sample Da	ate: 9/29/2	016 8:30:00 A	M
Location	A41A				Matrix Ty	pe: Solid (dry wt basis)	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units	Lab	Validation Qualifier	Validation Notes
Antimony		7440-36-0	516	996	498	ug/kg d	ry JD	J-	Q
Arsenic		7440-38-2	14100	1990	498	ug/kg d	ry D		
Cadmium		7440-43-9	2370	199	99.6	ug/kg d	ry D		
Chromium		7440-47-3	3500	1990	996	ug/kg d	ry D		
Copper		7440-50-8	83200	996	498	ug/kg d	ry D		
ead		7439-92-1	372000	199	99.6	ug/kg d	ry D		
Nickel		7440-02-0	6080	996	498	ug/kg d	ry D	J	Α
Selenium		7782-49-2	<1990	1990	996	ug/kg d	ry U	U	
Silver		7440-22-4	2350	996	498	ug/kg d	ry D		
Гhallium		7440-28-0	1510	1990	996	ug/kg d	ry JD	J	
Lab Sample Name:	C161105-03	Sampl	e No: A8M5	-2645		Sample Da	ate: 9/27/2	016 10:25:00 A	AM
Location	A68				Matrix Ty	pe: Solid (dry wt basis)	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Antimony		7440-36-0	914	1000	502	ug/kg d	ry JD	J-	Q
Arsenic		7440-38-2	19200	2010	502	ug/kg d	ry D		
Cadmium		7440-43-9	7180	201	100	ug/kg d	ry D		
Chromium		7440-47-3	3890	2010	1000	ug/kg d	•		
Copper		7440-50-8	204000	1000	502	ug/kg d	•		
						2 2			
Lead		7439-92-1	1110000	201	100	ug/kg d	ry D		

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Selenium		7782-49-2	<2010	2010	1000	ug/kg dry U	U	
Silver		7440-22-4	3520	1000	502	ug/kg dry D		
Thallium		7440-28-0	1940	2010	1000	ug/kg dry JD	J	
Lab Sample Name:	C161105-04	Sampl	e No: A8M5	-2646		Sample Date: 9/29	/2016 2:15:00 PI	M
Location	CC18B				Matrix Ty	pe: Solid (dry wt basi	is)	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Lab Units Qualifie	Validation r Qualifier	Validation Notes
Antimony		7440-36-0	1520	996	498	ug/kg dry D	J-	Q
Arsenic		7440-38-2	35700	1990	498	ug/kg dry D		
Cadmium		7440-43-9	2150	199	99.6	ug/kg dry D		
Chromium		7440-47-3	5910	1990	996	ug/kg dry D		
Copper		7440-50-8	141000	996	498	ug/kg dry D		
Lead		7439-92-1	907000	199	99.6	ug/kg dry D		
Nickel		7440-02-0	3790	996	498	ug/kg dry D	J	A
Selenium		7782-49-2	1570	1990	996	ug/kg dry JD	J	
Silver		7440-22-4	4660	996	498	ug/kg dry D		
Гhallium		7440-28-0	<1990	1990	996	ug/kg dry U	U	
Lab Sample Name:	C161105-05	Sampl	e No: A8M5	-2647		Sample Date: 9/28	/2016 5:10:00 PI	M
Location	CC21D				Matrix Ty	pe: Solid (dry wt basi	is)	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Lab		Validation Notes
Antimony		7440-36-0	1760	995	497	ug/kg dry D	J-	Q
Arsenic		7440-38-2	24000	1990	497	ug/kg dry D		
Cadmium		7440-43-9	217	199	99.5	ug/kg dry D		
Chromium		7440-47-3	3110	1990	995	ug/kg dry D		
Copper		7440-50-8	23800	995	497	ug/kg dry D		
Lead		7439-92-1	345000	199	99.5	ug/kg dry D		
Nickel		7440-02-0	870	995	497	ug/kg dry JD	J	Α
Selenium		7782-49-2	3530	1990	995	ug/kg dry D		
Silver		7440-22-4	1840	995	497	ug/kg dry D		
Thallium		7440-28-0	<1990	1990	995	ug/kg dry U	U	
Lab Sample Name:	C161105-06	Sampl	e No: A8M5	-2648		Sample Date: 9/29	/2016 12:00:00 I	PM
Location	CC24C				Matrix Ty	pe: Solid (dry wt basi	is)	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Lab Units Qualifie		Validation Notes
				-				0
Antimony		7440-36-0	1050	1010	505	ug/kg dry D	J-	Q
		7440-36-0 7440-38-2	1050 48800	1010 2020	505 505	ug/kg dry D ug/kg dry D	J-	Ų
Arsenic							J-	Ų .
Arsenic Cadmium		7440-38-2	48800	2020	505	ug/kg dry D		- V
Antimony Arsenic Cadmium Chromium Copper		7440-38-2 7440-43-9	48800 113	2020 202	505 101	ug/kg dry D ug/kg dry JD		<u> </u>
Arsenic Cadmium Chromium		7440-38-2 7440-43-9 7440-47-3	48800 113 3250	2020 202 2020	505 101 1010	ug/kg dry D ug/kg dry JD ug/kg dry D		· ·

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Analysis Method	ICPMS Tot.	Rec.	Metals
11:000 / 505 1:100:00			1.100000

Selenium		7782-49-2	1370	2020	1010	ug/kg dı	y JD	J	
Silver		7440-22-4	1330	1010	505	ug/kg dı	y D		
Γhallium		7440-28-0	<2020	2020	1010	ug/kg dı	•	U	
Lab Sample Name:	C161105-07	Sampl	e No: A8M5	-2649		Sample Da	te: 9/29/2	016 9:15:00 A	M
Location	CC25				Matrix Ty	pe: Solid (dry wt basis)	ı	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Antimony		7440-36-0	4730	983	492	ug/kg dı	y D	J-	Q
Arsenic		7440-38-2	51400	1970	492	ug/kg dı	y D		
Cadmium		7440-43-9	267	197	98.3	ug/kg dı	y D		
Chromium		7440-47-3	2460	1970	983	ug/kg dı	y D		
Copper		7440-50-8	26500	983	492	ug/kg dı	y D		
Lead		7439-92-1	594000	197	98.3	ug/kg dı	y D		
Nickel		7440-02-0	960	983	492	ug/kg dı	y JD	J	A
Selenium		7782-49-2	3100	1970	983	ug/kg dı	y D		
Silver		7440-22-4	4620	983	492	ug/kg dı	y D		
Гhallium		7440-28-0	<1970	1970	983	ug/kg dı	y U	U	
Lab Sample Name:	C161105-08	Sampl	e No: A8M5	-2650		Sample Da	te: 9/28/2	016 4:20:00 PI	M
Location	CC26				Matrix Ty	pe: Solid (dry wt basis)	ı	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Antimony		7440-36-0	3320	993	497	ug/kg dı	y D	J-	Q
Arsenic		7440-38-2	83800	1990	497	ug/kg dı	y D		
Cadmium		7440-43-9	2160	199	99.3	ug/kg dı	y D		
Chromium		7440-47-3	2880	1990	993	ug/kg dı	y D		
Copper		7440-50-8	53400	993	497	ug/kg dı	y D		
Lead		7439-92-1	437000	199	99.3	ug/kg dı	y D		
Nickel		7440-02-0	1590	993	497	ug/kg dı	y D	J	A
Selenium		7782-49-2	2180	1990	993	ug/kg dı	y D		
Silver		7440-22-4	3660	993	497	ug/kg dı	y D		
Γhallium		7440-28-0	<1990	1990	993	ug/kg dı	y U	U	
Lab Sample Name:	C161105-09	Sampl	e No: A8M5	-2651		Sample Da	te: 9/28/2	016 8:48:00 A	M
Location	CC38				Matrix Ty	pe: Solid (dry wt basis)	ı	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
		7440-36-0	563	1010	504	ug/kg dı	y JD	J-	Q
Antimony		7110 20 2	28800	2010	504	ug/kg dı	y D		
		7440-38-2	20000						
Arsenic		7440-43-9	1270	201	101	ug/kg dı	y D		
Arsenic Cadmium					101 1010	ug/kg di ug/kg di	•		
Arsenic Cadmium Chromium		7440-43-9	1270	201			y D		
Antimony Arsenic Cadmium Chromium Copper		7440-43-9 7440-47-3	1270 3680	201 2010	1010	ug/kg dı	ry D		

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Selenium		7782-49-2	<2010	2010	1010	ug/kg dry U	U	
Silver		7440-22-4	2560	1010	504	ug/kg dry D		
Thallium		7440-28-0	<2010	2010	1010	ug/kg dry U	U	
Lab Sample Name:	C161105-10	Sampl	e No: A8M5	-2652		Sample Date:	9/28/2016 10:40:00) AM
Location	CC38D				Matrix Ty	pe: Solid (dry wt	basis)	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Lab Units Qual	Validation lifier Qualifier	n Validation Notes
Antimony		7440-36-0	543	998	499	ug/kg dry JI) J -	Q
Arsenic		7440-38-2	47600	2000	499	ug/kg dry D		
Cadmium		7440-43-9	2320	200	99.8	ug/kg dry D		
Chromium		7440-47-3	2670	2000	998	ug/kg dry D		
Copper		7440-50-8	68600	998	499	ug/kg dry D		
Lead		7439-92-1	648000	200	99.8	ug/kg dry D		
Nickel		7440-02-0	3410	998	499	ug/kg dry D	J	A
Selenium		7782-49-2	<2000	2000	998	ug/kg dry U	U	
Silver		7440-22-4	2390	998	499	ug/kg dry D		
Гhallium		7440-28-0	<2000	2000	998	ug/kg dry U	U	
Lab Sample Name:	C161105-11	Sampl	e No: A8M5	-2653		Sample Date:	9/29/2016 4:00:00	PM
Location	EG2				Matrix Ty	pe: Solid (dry wt	basis)	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Lab		n Validation Notes
Antimony		7440-36-0	<997	997	498	ug/kg dry U	R	Q
Arsenic		7440-38-2	18400	1990	498	ug/kg dry D		
Cadmium		7440-43-9	886	199	99.7	ug/kg dry D		
Chromium		7440-47-3	5250	1990	997	ug/kg dry D		
Copper		7440-50-8	68300	997	498	ug/kg dry D		
Lead		7439-92-1	152000	199	99.7	ug/kg dry D		
Nickel		7440-02-0	7530	997	498	ug/kg dry D	J	A
Selenium		7782-49-2	<1990	1990	997	ug/kg dry U	U	
Silver		7440-22-4	798	997	498	ug/kg dry JI) J	
Thallium		7440-28-0	<1990	1990	997	ug/kg dry U	U	
Lab Sample Name:	C161105-12	Sampl	e No: A8M5	-2654		Sample Date:	9/29/2016 3:30:00	PM
Location	EG2A				Matrix Ty	pe: Solid (dry wt	basis)	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Lab Units Qual		n Validation Notes
						ug/kg dry U	R	Q
Antimony		7440-36-0	<996	996	498	ug/kg ury U		
		7440-36-0 7440-38-2	<996 25000	996 1990	498 498	ug/kg dry D		
Arsenic								
Arsenic Cadmium		7440-38-2	25000	1990	498	ug/kg dry D		
Arsenic Cadmium Chromium		7440-38-2 7440-43-9	25000 1610	1990 199	498 99.6	ug/kg dry D		
Antimony Arsenic Cadmium Chromium Copper		7440-38-2 7440-43-9 7440-47-3	25000 1610 7090	1990 199 1990	498 99.6 996	ug/kg dry D ug/kg dry D ug/kg dry D		

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	Analysis	Method	ICPMS Tot.	Rec. I	Metals
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Selenium		7782-49-2	<1990	1990	996	ug/kg dr	y U	U	
Silver		7440-22-4	1510	996	498	ug/kg dr	y D		
Thallium		7440-28-0	<1990	1990	996	ug/kg dr	y U	U	
Lab Sample Name:	C161105-13	Sampl	e No: A8M5	-2655		Sample Da	te: 9/29/2	016 1:00:00 PN	M
Location	EG3A				Matrix Ty	pe: Solid (d	ry wt basis)	ı	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Antimony		7440-36-0	571	1000	502	ug/kg dr	y JD	J-	Q
Arsenic		7440-38-2	21200	2010	502	ug/kg dr	y D		
Cadmium		7440-43-9	854	201	100	ug/kg dr	y D		
Chromium		7440-47-3	4830	2010	1000	ug/kg dr	y D		
Copper		7440-50-8	117000	1000	502	ug/kg dr	y D		
Lead		7439-92-1	735000	201	100	ug/kg dr	y D		
Nickel		7440-02-0	9360	1000	502	ug/kg dr	y D	J	Α
Selenium		7782-49-2	<2010	2010	1000	ug/kg dr	y U	U	
Silver		7440-22-4	5000	1000	502	ug/kg dr	y D		
Гhallium		7440-28-0	1640	2010	1000	ug/kg dr	y JD	J	
Lab Sample Name:	C161105-14	Sampl	e No: A8M5	-2656		Sample Da	te: 9/28/2	016 4:15:00 PM	M
Location	EG5				Matrix Ty	pe: Solid (d	ry wt basis)	1	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Antimony		7440-36-0	581	1000	501	ug/kg dr	y JD	J-	Q
Arsenic		7440-38-2	39700	2000	501	ug/kg dr	y D		
Cadmium		7440-43-9	6410	200	100	ug/kg dr	y D		
Chromium		7440-47-3	6160	2000	1000	ug/kg dr	y D		
Copper		7440-50-8	222000	1000	501	ug/kg dr	y D		
Lead									
		7439-92-1	842000	200	100	ug/kg dr	y D		
Nickel		7439-92-1 7440-02-0	842000 9000	200 1000	100 501	ug/kg dr		J	A
							y D	J U	A
Selenium		7440-02-0	9000	1000	501	ug/kg dr	y D y U		A
Selenium Silver		7440-02-0 7782-49-2	9000	1000 2000	501 1000	ug/kg dr	y D y U y D		A
Selenium Silver Fhallium	C161105-15	7440-02-0 7782-49-2 7440-22-4 7440-28-0	9000 <2000 6740	1000 2000 1000 2000	501 1000 501 1000	ug/kg dr ug/kg dr ug/kg dr	y D y U y D	Ü	
Selenium Silver Fhallium Lab Sample Name:	C161105-15 M12	7440-02-0 7782-49-2 7440-22-4 7440-28-0	9000 <2000 6740 <2000	1000 2000 1000 2000	501 1000 501 1000	ug/kg dr ug/kg dr ug/kg dr ug/kg dr Sample Da	y D y U y D y U te: 9/29/2	U U 016 4:35:00 PM	
Selenium Silver Thallium Lab Sample Name: Location		7440-02-0 7782-49-2 7440-22-4 7440-28-0	9000 <2000 6740 <2000	1000 2000 1000 2000	501 1000 501 1000	ug/kg dr ug/kg dr ug/kg dr ug/kg dr Sample Da pe: Solid (d	y D y U y D y U te: 9/29/2 ry wt basis)	U U 016 4:35:00 PM	М
Selenium Silver Thallium Lab Sample Name: Location Analyte		7440-02-0 7782-49-2 7440-22-4 7440-28-0 Sampl	9000 <2000 6740 <2000 e No: A8M5	1000 2000 1000 2000 -2657 Sample Adjusted	501 1000 501 1000 Matrix Typ Sample Adjusted	ug/kg dr ug/kg dr ug/kg dr ug/kg dr Sample Da pe: Solid (d	y D y U y D y U te: 9/29/2 ry wt basis) Lab Qualifier	U U 016 4:35:00 PM Validation	M Validation
Selenium Silver Thallium Lab Sample Name: Location Analyte Antimony		7440-02-0 7782-49-2 7440-22-4 7440-28-0 Sampl	9000 <2000 6740 <2000 e No: A8M5 Result Value	1000 2000 1000 2000 -2657 Sample Adjusted CRQL	501 1000 501 1000 Matrix Typ Sample Adjusted MDL	ug/kg dr ug/kg dr ug/kg dr ug/kg dr Sample Dat pe: Solid (d Result Units	y D y U y D y U te: 9/29/2 ry wt basis) Lab Qualifier	U U 016 4:35:00 PN Validation Qualifier	M Validation Notes
Selenium Silver Thallium Lab Sample Name: Location Analyte Antimony Arsenic		7440-02-0 7782-49-2 7440-22-4 7440-28-0 Sampl CAS No	9000 <2000 6740 <2000 e No: A8M5 Result Value	2000 1000 2000 2000 -2657 Sample Adjusted CRQL 999	501 1000 501 1000 Matrix Typ Sample Adjusted MDL 500	ug/kg dr ug/kg dr ug/kg dr ug/kg dr Sample Da pe: Solid (d Result Units	y D y U y D y U te: 9/29/2 ry wt basis) Lab Qualifier y U	U U 016 4:35:00 PN Validation Qualifier	M Validation Notes
Selenium Silver Thallium Lab Sample Name: Location Analyte Antimony Arsenic Cadmium		7440-02-0 7782-49-2 7440-22-4 7440-28-0 Sampl CAS No 7440-36-0 7440-38-2	9000 <2000 6740 <2000 e No: A8M5 Result Value <999	1000 2000 1000 2000 -2657 Sample Adjusted CRQL 999 2000	501 1000 501 1000 Matrix Typ Sample Adjusted MDL 500 500	ug/kg dr ug/kg dr ug/kg dr ug/kg dr Sample Da pe: Solid (d Result Units ug/kg dr ug/kg dr	y D y U y D y U te: 9/29/2 ry wt basis) Lab Qualifier y U y D	U U 016 4:35:00 PN Validation Qualifier	M Validation Notes
Selenium Silver Thallium Lab Sample Name: Location Analyte Antimony Arsenic Cadmium Chromium		7440-02-0 7782-49-2 7440-22-4 7440-28-0 Sampl CAS No 7440-36-0 7440-38-2 7440-43-9	9000 <2000 6740 <2000 e No: A8M5 Result Value <999 16500 1760	2000 2000 2000 2000 2000 2000 2000 200	501 1000 501 1000 Matrix Typ Sample Adjusted MDL 500 500 99.9	ug/kg dr ug/kg dr ug/kg dr ug/kg dr Sample Dar pe: Solid (d Result Units ug/kg dr ug/kg dr	y D y U y D y U te: 9/29/2 ry wt basis) Lab Qualifier y U y D y D	U U 016 4:35:00 PN Validation Qualifier	M Validation Notes
		7440-02-0 7782-49-2 7440-22-4 7440-28-0 Sampl CAS No 7440-36-0 7440-38-2 7440-43-9 7440-47-3	9000 <2000 6740 <2000 e No: A8M5 Result Value <999 16500 1760 8700	1000 2000 1000 2000 -2657 Sample Adjusted CRQL 999 2000 200 2000	501 1000 501 1000 Matrix Tyj Sample Adjusted MDL 500 500 99.9	ug/kg dr ug/kg dr ug/kg dr ug/kg dr Sample Da pe: Solid (d Result Units ug/kg dr ug/kg dr ug/kg dr	y D y U y D y U te: 9/29/2 ry wt basis) Lab Qualifier y U y D y D	U U 016 4:35:00 PN Validation Qualifier	M Validation Notes

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Selenium								
Scientini		7782-49-2	<2000	2000	999	ug/kg dry U	U	
Silver		7440-22-4	569	999	500	ug/kg dry JD	J	
Thallium		7440-28-0	<2000	2000	999	ug/kg dry U	U	
Lab Sample Name:	C161105-16	Sample	e No: A8M5	-2658		Sample Date: 9/28/2	2016 4:30:00 PM	Л
Location	M14				Matrix Typ	e: Solid (dry wt basis)	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Lab Units Qualifier	Validation Qualifier	Validation Notes
Antimony		7440-36-0	<1000	1000	501	ug/kg dry U	R	Q
Arsenic		7440-38-2	12100	2010	501	ug/kg dry D		
Cadmium		7440-43-9	<201	201	100	ug/kg dry U	U	
Chromium		7440-47-3	1980	2010	1000	ug/kg dry JD	J	
Copper		7440-50-8	21300	1000	501	ug/kg dry D		
Lead		7439-92-1	102000	201	100	ug/kg dry D		
Nickel		7440-02-0	1270	1000	501	ug/kg dry D	J	Α
Selenium		7782-49-2	1210	2010	1000	ug/kg dry JD	J	
Silver		7440-22-4	585	1000	501	ug/kg dry JD	J	
Thallium		7440-28-0	<2010	2010	1000	ug/kg dry U	U	
Lab Sample Name:	C161105-17	Sample	e No: A8M5	-2659		Sample Date: 9/27/2	2016 5:30:00 PN	Л
Location	M24D				Matrix Ty	e: Solid (dry wt basis)	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Lab Units Qualifier	Validation Qualifier	Validation Notes
Antimony		7440-36-0	511	997	499	ug/kg dry JD	J-	Q
Arsenic		7440-38-2	9490	1990	499	ug/kg dry D		
Cadmium		7440-43-9	44300	199	99.7	ug/kg dry D		
Chromium		7440-47-3	6170	1990	997	ug/kg dry D		
Copper		7440-50-8	347000	997	499	ug/kg dry D		
Lead		7439-92-1	466000	400				
			+00000	199	99.7	ug/kg dry D		
Nickel		7440-02-0	16000	997	99.7 499	ug/kg dry D	J	A
		7440-02-0 7782-49-2					J U	A
Selenium			16000	997	499	ug/kg dry D		A
Selenium Silver		7782-49-2	16000 <1990	997 1990	499 997	ug/kg dry D ug/kg dry U		A
Selenium Silver Thallium	C161105-18	7782-49-2 7440-22-4	16000 <1990 2750 <1990	997 1990 997 1990	499 997 499 997	ug/kg dry D ug/kg dry U ug/kg dry D	U	
Selenium Silver Thallium	C161105-18 M25	7782-49-2 7440-22-4 7440-28-0	16000 <1990 2750 <1990	997 1990 997 1990	499 997 499 997	ug/kg dry D ug/kg dry U ug/kg dry D ug/kg dry U	U U 2016 5:00:00 PN	
Selenium Silver Thallium Lab Sample Name: Location		7782-49-2 7440-22-4 7440-28-0	16000 <1990 2750 <1990	997 1990 997 1990 -2660 Sample Adjusted	499 997 499 997 Matrix Typ Sample Adjusted	ug/kg dry D ug/kg dry U ug/kg dry D ug/kg dry U Sample Date: 9/27/2 pe: Solid (dry wt basis Result Lab	U U 2016 5:00:00 PN	M
Selenium Silver Thallium Lab Sample Name: Location Analyte		7782-49-2 7440-22-4 7440-28-0 Sample	16000 <1990 2750 <1990 e No: A8M5	997 1990 997 1990 -2660 Sample	499 997 499 997 Matrix Typ Sample	ug/kg dry D ug/kg dry U ug/kg dry D ug/kg dry U Sample Date: 9/27/2 pe: Solid (dry wt basis Result Lab	U U 2016 5:00:00 PN) Validation	M Validation Notes
Selenium Silver Thallium Lab Sample Name: Location Analyte Antimony		7782-49-2 7440-22-4 7440-28-0 Sample CAS No	16000 <1990 2750 <1990 e No: A8M5 Result Value	997 1990 997 1990 -2660 Sample Adjusted CRQL	499 997 499 997 Matrix Typ Sample Adjusted MDL	ug/kg dry D ug/kg dry U ug/kg dry D ug/kg dry U Sample Date: 9/27/2 pe: Solid (dry wt basis Result Lab Units Qualifier	U U 2016 5:00:00 PM Validation Qualifier	M Validation
Selenium Silver Thallium Lab Sample Name: Location Analyte Antimony Arsenic		7782-49-2 7440-22-4 7440-28-0 Sample CAS No	16000 <1990 2750 <1990 e No: A8M5 Result Value <1010	997 1990 997 1990 -2660 Sample Adjusted CRQL 1010	499 997 499 997 Matrix Typ Sample Adjusted MDL 503	ug/kg dry D ug/kg dry U ug/kg dry D ug/kg dry U Sample Date: 9/27/2 De: Solid (dry wt basis Result Lab Units Qualifier ug/kg dry U	U U 2016 5:00:00 PM Validation Qualifier	M Validation Notes
Selenium Silver Thallium Lab Sample Name: Location Analyte Antimony Arsenic Cadmium		7782-49-2 7440-22-4 7440-28-0 Sample CAS No 7440-36-0 7440-38-2	16000 <1990 2750 <1990 e No: A8M5 Result Value <1010 4570	997 1990 997 1990 -2660 Sample Adjusted CRQL 1010 2010	499 997 499 997 Matrix Typ Sample Adjusted MDL 503 503	ug/kg dry D ug/kg dry U ug/kg dry U ug/kg dry U Sample Date: 9/27/2 pe: Solid (dry wt basis Result Lab Units Qualifier ug/kg dry U ug/kg dry D ug/kg dry D	U U 2016 5:00:00 PM Validation Qualifier	M Validation Notes
Location Analyte Antimony Arsenic Cadmium Chromium		7782-49-2 7440-22-4 7440-28-0 Sample CAS No 7440-36-0 7440-38-2 7440-43-9 7440-47-3	16000 <1990 2750 <1990 e No: A8M5 Result Value <1010 4570 1140 6620	997 1990 997 1990 -2660 Sample Adjusted CRQL 1010 2010 201	499 997 499 997 Matrix Typ Sample Adjusted MDL 503 503 101 1010	ug/kg dry D ug/kg dry U ug/kg dry U ug/kg dry U Sample Date: 9/27/2 pe: Solid (dry wt basis Result Lab Units Qualifier ug/kg dry U ug/kg dry D ug/kg dry D ug/kg dry D ug/kg dry D	U U 2016 5:00:00 PM Validation Qualifier	M Validation Notes
Selenium Silver Thallium Lab Sample Name: Location Analyte Antimony Arsenic Cadmium		7782-49-2 7440-22-4 7440-28-0 Sample CAS No 7440-36-0 7440-38-2 7440-43-9	16000 <1990 2750 <1990 e No: A8M5 Result Value <1010 4570 1140	997 1990 997 1990 -2660 Sample Adjusted CRQL 1010 2010 201	499 997 499 997 Matrix Typ Sample Adjusted MDL 503 503	ug/kg dry D ug/kg dry U ug/kg dry U ug/kg dry U Sample Date: 9/27/2 pe: Solid (dry wt basis Result Lab Units Qualifier ug/kg dry U ug/kg dry D ug/kg dry D	U U 2016 5:00:00 PM Validation Qualifier	M Validation Notes

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Selenium		7782-49-2	<2010	2010	1010	ug/kg dr	y U	U	
Silver		7440-22-4	<1010	1010	503	ug/kg dr	y U	U	
Γhallium		7440-28-0	<2010	2010	1010	ug/kg dr		U	
Lab Sample Name:	C161105-19	Sampl	e No: A8M5	-2661		Sample Da	te: 9/28/2	016 9:35:00 A	M
Location	M26B				Matrix Typ	pe: Solid (d	ry wt basis)	ı	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Antimony		7440-36-0	<1000	1000	500	ug/kg dr	y U	R	Q
Arsenic		7440-38-2	11300	2000	500	ug/kg dr	y D		
Cadmium		7440-43-9	1650	200	100	ug/kg dr	y D		
Chromium		7440-47-3	3190	2000	1000	ug/kg dr	y D		
Copper		7440-50-8	23000	1000	500	ug/kg dr	y D		
Lead		7439-92-1	175000	200	100	ug/kg dr	y D		
Nickel		7440-02-0	7560	1000	500	ug/kg dr	y D	J	A
Selenium		7782-49-2	<2000	2000	1000	ug/kg dr	y U	U	
Silver		7440-22-4	768	1000	500	ug/kg dr	y JD	J	
Гhallium		7440-28-0	<2000	2000	1000	ug/kg dr	y U	U	
Lab Sample Name:	C161105-20	Sampl	e No: A8M5	-2662		Sample Da	te: 9/27/2	016 3:00:00 PM	М
Location	M27				Matrix Ty	oe: Solid (d	ry wt basis)	ı	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result	Lab	Validation Qualifier	Validation Notes
Antimony		7440-36-0	<991	991	495	ug/kg dr	y U	R	Q
Arsenic		7440-38-2	26000	1000	40.5				
		7440 30 2	20000	1980	495	ug/kg dr	y D		
		7440-43-9	949	1980	99.1	ug/kg dr ug/kg dr	<u> </u>		
Cadmium							y D		
Cadmium Chromium		7440-43-9	949	198	99.1	ug/kg dr	y D y D		
Cadmium Chromium Copper		7440-43-9 7440-47-3	949 2860	198 1980	99.1 991	ug/kg dr ug/kg dr	y D y D		
Cadmium Chromium Copper Lead		7440-43-9 7440-47-3 7440-50-8	949 2860 52800	198 1980 991	99.1 991 495	ug/kg dr ug/kg dr ug/kg dr	y D y D y D	1	A
Cadmium Chromium Copper Lead Nickel		7440-43-9 7440-47-3 7440-50-8 7439-92-1	949 2860 52800 276000	198 1980 991 198	99.1 991 495 99.1	ug/kg dr ug/kg dr ug/kg dr	y D y D y D y D	1	A
Cadmium Chromium Copper Lead Nickel Selenium		7440-43-9 7440-47-3 7440-50-8 7439-92-1 7440-02-0	949 2860 52800 276000 2080	198 1980 991 198 991	99.1 991 495 99.1 495	ug/kg dr ug/kg dr ug/kg dr ug/kg dr	y D y D y D y D y D		A
Cadmium Chromium Copper Lead Nickel Selenium		7440-43-9 7440-47-3 7440-50-8 7439-92-1 7440-02-0 7782-49-2	949 2860 52800 276000 2080 1150	198 1980 991 198 991 1980	99.1 991 495 99.1 495 991	ug/kg dr ug/kg dr ug/kg dr ug/kg dr ug/kg dr	y D y D y D y D y D y D	J	A
Cadmium Chromium Copper Lead Nickel Selenium Silver Challium	C161105-21	7440-43-9 7440-47-3 7440-50-8 7439-92-1 7440-02-0 7782-49-2 7440-22-4 7440-28-0	949 2860 52800 276000 2080 1150 815	198 1980 991 198 991 1980 991	99.1 991 495 99.1 495 991 495	ug/kg dr ug/kg dr ug/kg dr ug/kg dr ug/kg dr ug/kg dr ug/kg dr	y D y D y D y D y D y D y D y D y D y D	1	
Cadmium Chromium Copper Lead Nickel Selenium Silver Thallium Lab Sample Name:	C161105-21 PWMLP1	7440-43-9 7440-47-3 7440-50-8 7439-92-1 7440-02-0 7782-49-2 7440-22-4 7440-28-0	949 2860 52800 276000 2080 1150 815 <1980	198 1980 991 198 991 1980 991	99.1 991 495 99.1 495 991 495	ug/kg dr ug/kg dr ug/kg dr ug/kg dr ug/kg dr ug/kg dr ug/kg dr	y D y D y D y D y D y D y D y D y D y D	J J U 016 2:15:00 PM	
Cadmium Chromium Copper Lead Nickel Selenium Silver Challium Lab Sample Name: Location		7440-43-9 7440-47-3 7440-50-8 7439-92-1 7440-02-0 7782-49-2 7440-22-4 7440-28-0	949 2860 52800 276000 2080 1150 815 <1980	198 1980 991 198 991 1980 991	99.1 991 495 99.1 495 991 495	ug/kg dr sample Da pe: Solid (d	y D y D y D y D y D y D y D y JD y JD y	J J U 016 2:15:00 PM	И
Cadmium Chromium Copper Lead Nickel Selenium Silver Challium Lab Sample Name: Location Analyte		7440-43-9 7440-47-3 7440-50-8 7439-92-1 7440-02-0 7782-49-2 7440-22-4 7440-28-0 Sampl	949 2860 52800 276000 2080 1150 815 <1980 e No: A8M5	198 1980 991 198 991 1980 991 1980 -2663 Sample Adjusted	99.1 991 495 99.1 495 991 495 991 Matrix Typ Sample Adjusted	ug/kg dr soe: Solid (de	y D y D y D y D y D y D y JD y JD y U te: 9/28/2 ry wt basis) Lab Qualifier	J U 016 2:15:00 PM	A Validation
Cadmium Chromium Copper Lead Nickel Selenium Silver Thallium Lab Sample Name: Location Analyte		7440-43-9 7440-47-3 7440-50-8 7439-92-1 7440-02-0 7782-49-2 7440-22-4 7440-28-0 Sampl CAS No	949 2860 52800 276000 2080 1150 815 <1980 e No: A8M5 Result Value	198 1980 991 198 991 1980 991 -2663 Sample Adjusted CRQL	99.1 991 495 99.1 495 991 495 991 Matrix Typ Sample Adjusted MDL	ug/kg dr	y D y D y D y D y D y D y D y JD y JD y	J U 016 2:15:00 PM Validation Qualifier	M Validation Notes
Cadmium Chromium Copper Lead Nickel Selenium Silver Thallium Lab Sample Name: Location Analyte Antimony Arsenic		7440-43-9 7440-47-3 7440-50-8 7439-92-1 7440-02-0 7782-49-2 7440-22-4 7440-28-0 Sampl CAS No	949 2860 52800 276000 2080 1150 815 <1980 e No: A8M5 Result Value	198 1980 991 198 991 1980 991 1980 -2663 Sample Adjusted CRQL 981	99.1 991 495 99.1 495 991 495 991 Matrix Typ Sample Adjusted MDL 491	ug/kg dr	y D y D y D y D y D y D y JD y JD y U te: 9/28/2 ry wt basis) Lab Qualifier y D	J U 016 2:15:00 PM Validation Qualifier	M Validation Notes
Cadmium Chromium Copper Lead Nickel Selenium Silver Thallium Lab Sample Name: Location Analyte Antimony Arsenic Cadmium		7440-43-9 7440-47-3 7440-50-8 7439-92-1 7440-02-0 7782-49-2 7440-22-4 7440-28-0 Sampl CAS No 7440-36-0 7440-38-2	949 2860 52800 276000 2080 1150 815 <1980 e No: A8M5 Result Value 15800 445000	198 1980 991 198 991 1980 991 1980 -2663 Sample Adjusted CRQL 981 1960	99.1 991 495 99.1 495 991 495 991 Matrix Typ Sample Adjusted MDL 491 491	ug/kg dr	y D y D y D y D y D y D y D y JD y JD y	J U 016 2:15:00 PM Validation Qualifier	M Validation Notes
Cadmium Chromium Copper Lead Nickel Selenium Silver Thallium Lab Sample Name: Location Analyte Antimony Arsenic Cadmium Chromium Copper		7440-43-9 7440-47-3 7440-50-8 7439-92-1 7440-02-0 7782-49-2 7440-22-4 7440-28-0 Sampl CAS No 7440-36-0 7440-38-2 7440-43-9	949 2860 52800 276000 2080 1150 815 <1980 e No: A8M5 Result Value 15800 445000 15700	198 1980 991 198 991 1980 991 1980 -2663 Sample Adjusted CRQL 981 1960 196	99.1 991 495 99.1 495 991 495 991 Matrix Typ Sample Adjusted MDL 491 491 98.1	ug/kg dr	y D y D y D y D y D y D y JD y JD y U te: 9/28/2 ry wt basis) Lab Qualifier y D y D	J U 016 2:15:00 PM Validation Qualifier	M Validation Notes
Cadmium Chromium Copper Lead Nickel Selenium Silver Thallium Lab Sample Name: Location Analyte Antimony Arsenic Cadmium Chromium		7440-43-9 7440-47-3 7440-50-8 7439-92-1 7440-02-0 7782-49-2 7440-22-4 7440-28-0 Sampl CAS No 7440-36-0 7440-38-2 7440-47-3	949 2860 52800 276000 2080 1150 815 <1980 e No: A8M5 Result Value 15800 445000 15700 4330	198 1980 991 198 991 1980 991 1980 -2663 Sample Adjusted CRQL 981 1960 196	99.1 991 495 99.1 495 991 495 991 Matrix Typ Sample Adjusted MDL 491 491 98.1	ug/kg dr	y D y D y D y D y D y D y D y JD y JD y	J U 016 2:15:00 PM Validation Qualifier	M Validation Notes

Manganese

Silica (SiO2)

Analysis Metho	300 101111	IS Tot. Rec	. Meiuis						
Selenium		7782-49-2	2400	1960	981	ug/kg dry	y D		
Silver		7440-22-4	18600	981	491	ug/kg dry	y D		
Thallium		7440-28-0	<1960	1960	981	ug/kg dry	y U	U	
Analysis Metho	od ICPO	E Tot. Rec	. Metals						
Lab Sample Name:	C161105-01	Sample	e No: A8M5	5-2643		Sample Dat	te: 9/27/2	2016 10:00:00 A	AM
Location	A34				Matrix Ty	pe: Solid (d	ry wt basis))	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result 1	Lab	Validation Qualifier	Validation Notes
Aluminum		7429-90-5	9520	50.3	20.1	mg/kg dr	D		
Beryllium		7440-41-7	< 5.03	5.03	1.01	mg/kg dr	· U	U	
Calcium		7440-70-2	2460	252	101	mg/kg dr	D		
Iron		7439-89-6	42100	252	101	mg/kg dr	D		
Magnesium		7439-95-4	4510	252	101	mg/kg dr	. D		
Manganese		7439-96-5	5330	5.03	2.01	mg/kg dr	. D		
Silica (SiO2)		763-18-69	5860	1010	252	mg/kg dr	D		
Strontium		7440-24-6	28.9	10.1	2.01	mg/kg dr	D		
Zinc		7440-66-6	5370	20.1	10.1	mg/kg dr	. D		
Lab Sample Name:	C161105-02	Sample	e No: A8M5	5-2644		Sample Dat	te: 9/29/2	2016 8:30:00 Al	M
Location	A41A				Matrix Typ	pe: Solid (d	ry wt basis))	
Analyte		CAS No	Result	Sample					
			Value	Adjusted CRQL	Sample Adjusted MDL	Result 1 Units (Validation Qualifier	Validation Notes
Aluminum		7429-90-5		Adjusted	Adjusted		Qualifier		
		7429-90-5 7440-41-7	Value	Adjusted CRQL	Adjusted MDL	Units (Qualifier D		
Beryllium			Value 8700	Adjusted CRQL 49.8	Adjusted MDL 19.9	Units of mg/kg dr	Qualifier D U	Qualifier	
Beryllium Calcium		7440-41-7	8700 <4.98	Adjusted CRQL 49.8 4.98	Adjusted MDL 19.9 0.996	mg/kg dr	Qualifier D U D	Qualifier	
Beryllium Calcium Iron		7440-41-7 7440-70-2	8700 <4.98 3110	Adjusted CRQL 49.8 4.98 249	Adjusted MDL 19.9 0.996 99.6	Units (mg/kg dr mg/kg dr mg/kg dr	Qualifier D U D D	Qualifier	
Beryllium Calcium Iron Magnesium		7440-41-7 7440-70-2 7439-89-6	8700 <4.98 3110 27600	Adjusted CRQL 49.8 4.98 249 249	Adjusted MDL 19.9 0.996 99.6	mg/kg dr mg/kg dr mg/kg dr	Qualifier D U D D D D D D D	Qualifier	
Beryllium Calcium Iron Magnesium Manganese		7440-41-7 7440-70-2 7439-89-6 7439-95-4	8700 <4.98 3110 27600 5040	49.8 4.98 249 249 249	Adjusted MDL 19.9 0.996 99.6 99.6 99.6	Units of mg/kg dr mg/kg dr mg/kg dr mg/kg dr mg/kg dr	Qualifier D D D D D D D	Qualifier	
Beryllium Calcium Iron Magnesium Manganese Silica (SiO2)		7440-41-7 7440-70-2 7439-89-6 7439-95-4 7439-96-5	8700 <4.98 3110 27600 5040 2360	Adjusted CRQL 49.8 4.98 249 249 249 4.98	Adjusted MDL 19.9 0.996 99.6 99.6 1.99	mg/kg dr mg/kg dr mg/kg dr mg/kg dr mg/kg dr mg/kg dr	Qualifier D D D D D D D D D D	Qualifier	Validation Notes
Beryllium Calcium Iron Magnesium Manganese Silica (SiO2) Strontium		7440-41-7 7440-70-2 7439-89-6 7439-95-4 7439-96-5 763-18-69	8700 <4.98 3110 27600 5040 2360 4800	Adjusted CRQL 49.8 4.98 249 249 249 4.98 996	Adjusted MDL 19.9 0.996 99.6 99.6 1.99 249	mg/kg dr mg/kg dr mg/kg dr mg/kg dr mg/kg dr mg/kg dr	Qualifier D D D D D D D D D D D D D D D D D D	Qualifier	
Beryllium Calcium Iron Magnesium Manganese Silica (SiO2) Strontium Zinc	C161105-03	7440-41-7 7440-70-2 7439-89-6 7439-95-4 7439-96-5 763-18-69 7440-24-6	8700 <4.98 3110 27600 5040 2360 4800 40.7 529	Adjusted CRQL 49.8 4.98 249 249 4.98 996 9.96	Adjusted MDL 19.9 0.996 99.6 99.6 1.99 249 1.99 9.96	mg/kg dr	Qualifier D D D D D D D D D D D	Qualifier	Notes
Beryllium Calcium fron Magnesium Manganese Silica (SiO2) Strontium Zinc Lab Sample Name:	C161105-03 A68	7440-41-7 7440-70-2 7439-89-6 7439-95-4 7439-96-5 763-18-69 7440-24-6 7440-66-6	8700 <4.98 3110 27600 5040 2360 4800 40.7 529	Adjusted CRQL 49.8 4.98 249 249 4.98 996 9.96	Adjusted MDL 19.9 0.996 99.6 99.6 1.99 249 1.99 9.96	mg/kg dr	Qualifier D D D D D D D D D D D D D D D D D D	Qualifier U 2016 10:25:00 A	Notes
Beryllium Calcium Iron Magnesium Manganese Silica (SiO2) Strontium Zinc Lab Sample Name: Location		7440-41-7 7440-70-2 7439-89-6 7439-95-4 7439-96-5 763-18-69 7440-24-6 7440-66-6	8700 <4.98 3110 27600 5040 2360 4800 40.7 529	Adjusted CRQL 49.8 4.98 249 249 4.98 996 9.96	Adjusted MDL 19.9 0.996 99.6 99.6 1.99 249 1.99 9.96	mg/kg dr sample Dat pe: Solid (de	Qualifier D D D D D D D D D D D D Lae: 9/27/2	Qualifier U 2016 10:25:00 A	Notes
Beryllium Calcium Iron Magnesium Manganese Silica (SiO2) Strontium Zinc Lab Sample Name: Location Analyte		7440-41-7 7440-70-2 7439-89-6 7439-95-4 7439-96-5 763-18-69 7440-24-6 Sample	8700 <4.98 3110 27600 5040 2360 4800 40.7 529 e No: A8M5	49.8 4.98 249 249 4.98 996 9.96 19.9 Sample Adjusted	Adjusted MDL 19.9 0.996 99.6 99.6 1.99 249 1.99 9.96 Matrix Typ Sample Adjusted	mg/kg dr solid (dr Result	Qualifier D D D D D D D D D Lee: 9/27/2	Qualifier U 2016 10:25:00 A	Notes AM Validation
Beryllium Calcium Iron Magnesium Manganese Silica (SiO2) Strontium Zinc Lab Sample Name: Location Analyte		7440-41-7 7440-70-2 7439-89-6 7439-95-4 7439-96-5 763-18-69 7440-24-6 Sample CAS No	8700 4.98 3110 27600 5040 2360 4800 40.7 529 e No: A8M5	49.8 4.98 249 249 4.98 996 9.96 19.9 5-2645 Sample Adjusted CRQL	Adjusted MDL 19.9 0.996 99.6 99.6 1.99 249 1.99 9.96 Matrix Typ Sample Adjusted MDL	mg/kg dr	Qualifier D U D D D D D D P D P P P P P P P P P	Qualifier U 2016 10:25:00 A	Notes AM Validation
Aluminum Beryllium Calcium Iron Magnesium Manganese Silica (SiO2) Strontium Zinc Lab Sample Name: Location Analyte Aluminum Beryllium Calcium		7440-41-7 7440-70-2 7439-89-6 7439-95-4 7439-96-5 763-18-69 7440-24-6 Sample CAS No	8700 44.98 3110 27600 5040 2360 4800 40.7 529 e No: A8M5 Result Value	Adjusted CRQL 49.8 4.98 249 249 4.98 996 9.96 19.9 3-2645 Sample Adjusted CRQL 50.2	Adjusted MDL 19.9 0.996 99.6 99.6 1.99 249 1.99 9.96 Matrix Typ Sample Adjusted MDL 20.1	mg/kg dr	Qualifier D D D D D D D D D D D D D	Qualifier U 2016 10:25:00 A Validation Qualifier	Notes AM Validation
Beryllium Calcium Iron Magnesium Manganese Silica (SiO2) Strontium Zinc Lab Sample Name: Location Analyte Aluminum Beryllium		7440-41-7 7440-70-2 7439-89-6 7439-95-4 7439-96-5 763-18-69 7440-24-6 Sample CAS No 7429-90-5 7440-41-7	8700 44.98 3110 27600 5040 2360 4800 40.7 529 e No: A8M5 Result Value 8680 1.04	Adjusted CRQL 49.8 4.98 249 249 4.98 996 9.96 19.9 3-2645 Sample Adjusted CRQL 50.2 5.02	Adjusted MDL 19.9 0.996 99.6 99.6 1.99 249 1.99 9.96 Matrix Typ Sample Adjusted MDL 20.1 1.00	mg/kg dr Sample Dat pe: Solid (dr Result I Units (dr mg/kg dr	Qualifier D U D D D D D D P D P D P D P D P D P	Qualifier U 2016 10:25:00 A Validation Qualifier	Notes AM Validation

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5.02

1000

2.01

251

mg/kg dr

mg/kg dr D

D

6870

5260

7439-96-5

763-18-69

•									
Strontium		7440-24-6	29.2	10.0	2.01	mg/kg di	r D		
Zinc		7440-66-6	1620	20.1	10.0	mg/kg da	r D		
Lab Sample Name:	C161105-04	Sampl	e No: A8M5	5-2646		Sample Da	te: 9/29/2	2016 2:15:00 PM	M
Location	CC18B				Matrix Typ	pe: Solid (d	lry wt basis)	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Aluminum		7429-90-5	7640	49.8	19.9	mg/kg di	r D		
Beryllium		7440-41-7	<4.98	4.98	0.996	mg/kg di	r U	U	
Calcium		7440-70-2	851	249	99.6	mg/kg di	r D		
Iron		7439-89-6	64000	249	99.6	mg/kg di	r D		
Magnesium		7439-95-4	4300	249	99.6	mg/kg di	r D		
Manganese		7439-96-5	1030	4.98	1.99	mg/kg di	r D		
Silica (SiO2)		763-18-69	4730	996	249	mg/kg di	r D		
Strontium		7440-24-6	95.4	9.96	1.99	mg/kg di	r D		
Zinc		7440-66-6	655	19.9	9.96	mg/kg di	r D		
Lab Sample Name:	C161105-05	Sampl	e No: A8M5	5-2647		Sample Da	te: 9/28/2	2016 5:10:00 PM	М
Location	CC21D				Matrix Ty	pe: Solid (d	lry wt basis)	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Aluminum		7429-90-5	3140	49.7	19.9	mg/kg di	r D		
Beryllium		7440-41-7	<4.97	4.97	0.995	mg/kg di	r U	U	
Calcium		7440-70-2	122	249	99.5	mg/kg di	r JD	J	
Iron		7439-89-6	30600	249	99.5	mg/kg di	r D		
Magnesium		7439-95-4	1780	249	99.5	mg/kg di	r D		
Manganese		7439-96-5	180	4.97	1.99	mg/kg di	r D		
Silica (SiO2)		763-18-69	2800	995	249	mg/kg di	r D		
Strontium		7440-24-6	57.1	9.95	1.99	mg/kg di	r D		
Zinc		7440-66-6	77.9	19.9	9.95	mg/kg di	r D		
Lab Sample Name:	C161105-06	Sampl	e No: A8M5	5-2648		Sample Da	te: 9/29/2	2016 12:00:00 F	PM
Location	CC24C				Matrix Ty	pe: Solid (d	lry wt basis)	
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum		7429-90-5	4740	50.5	20.2	mg/kg di	r D		
n 111		7440 41 7	-E 0E	5.05	1.01	mg/kg di	r U	U	
Beryllium		7440-41-7	< 5.05	5.05					
		7440-41-7	233	253	101	mg/kg di	r JD	J	
Calcium						mg/kg da		J	
Calcium Iron		7440-70-2	233	253	101		r D	J	
Calcium Iron Magnesium		7440-70-2 7439-89-6	233 39500	253 253	101 101	mg/kg di	r D	J	
Calcium Iron Magnesium Manganese		7440-70-2 7439-89-6 7439-95-4	233 39500 1060	253 253 253	101 101 101	mg/kg di	r D r D	J	
Beryllium Calcium Iron Magnesium Manganese Silica (SiO2) Strontium		7440-70-2 7439-89-6 7439-95-4 7439-96-5	233 39500 1060 166	253 253 253 5.05	101 101 101 2.02	mg/kg da mg/kg da mg/kg da	r D r D r D	1	

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Manganese

Silica (SiO2)

Strontium

Zinc

Lab Sample Name: C161105-07 **Sample No:** A8M5-2649 Sample Date: 9/29/2016 9:15:00 AM CC25 Location Matrix Type: Solid (dry wt basis) Analyte CAS No Result Sample Sample Validation Validation Result Lab Value Adjusted Adjusted Units Qualifier Qualifier **Notes MDL CRQL** Aluminum 7429-90-5 2790 49.2 19.7 mg/kg dr D Bervllium 7440-41-7 <4.92 4.92 0.983 U U mg/kg dr Calcium 7440-70-2 189 246 98.3 JD J mg/kg dr 246 Iron 7439-89-6 29400 98.3 mg/kg dr D Magnesium 7439-95-4 825 246 98.3 mg/kg dr D Manganese 7439-96-5 126 4.92 1.97 mg/kg dr D Silica (SiO2) 2850 983 763-18-69 246 mg/kg dr D Strontium 7440-24-6 74.6 9.83 1.97 mg/kg dr D Zinc 7440-66-6 72.1 19.7 9.83 mg/kg dr A8M5-2650 Lab Sample Name: C161105-08 Sample No: **Sample Date:** 9/28/2016 4:20:00 PM Location CC26 Matrix Type: Solid (dry wt basis) CAS No Result Analyte Sample Sample Validation Validation Result Lab Value Adjusted Adjusted Qualifier Qualifier Units **Notes CRQL MDL** 19.9 Aluminum 7429-90-5 4050 49.7 mg/kg dr D Beryllium 7440-41-7 <4.97 4.97 0.993 U U mg/kg dr Calcium 7440-70-2 415 248 99.3 mg/kg dr D Iron 7439-89-6 38300 248 99.3 mg/kg dr D 7439-95-4 1700 248 99.3 Magnesium mg/kg dr D 7439-96-5 4.97 1.99 Manganese 197 mg/kg dr D Silica (SiO2) 763-18-69 3280 993 248 mg/kg dr D 50.3 9.93 1.99 Strontium 7440-24-6 mg/kg dr D Zinc 570 19.9 7440-66-6 9.93 mg/kg dr Lab Sample Name: C161105-09 Sample No: A8M5-2651 Sample Date: 9/28/2016 8:48:00 AM Location CC38 Matrix Type: Solid (dry wt basis) CAS No Analyte Result Sample Sample Result Lab Validation Validation Value Adjusted Adjusted Qualifier Qualifier Units **Notes** MDL **CRQL** Aluminum 7429-90-5 7010 50.4 20.1 mg/kg dr D U Beryllium 7440-41-7 < 5.04 5.04 1.01 U mg/kg dr 7440-70-2 1050 252 Calcium 101 mg/kg dr D 252 101 Iron 7439-89-6 34200 mg/kg dr D Magnesium 7439-95-4 3220 252 101 mg/kg dr D

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5.04

1010

10.1

20.1

2.01

252

2.01

10.1

mg/kg dr

mg/kg dr

mg/kg dr

mg/kg dr

D

D

D

565

4800

38.8

392

7439-96-5

763-18-69

7440-24-6

7440-66-6

Lab Sample Name:	C161105-10	Sampl	e No: A8M5	5-2652	Sample Date: 9/28/2016 10:40:00 AM					
Location	CC38D		Matrix Type: Solid (dry wt b							
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Lab Units Qualifier	Validation Qualifier	Validation Notes		
Aluminum		7429-90-5	5720	49.9	20.0	mg/kg dr D				
Beryllium		7440-41-7	<4.99	4.99	0.998	mg/kg dr U	U			
Calcium		7440-70-2	1020	249	99.8	mg/kg dr D				
Iron		7439-89-6	32200	249	99.8	mg/kg dr D				
Magnesium		7439-95-4	1980	249	99.8	mg/kg dr D				
Manganese		7439-96-5	995	4.99	2.00	mg/kg dr D				
Silica (SiO2)		763-18-69	4020	998	249	mg/kg dr D				
Strontium		7440-24-6	35.2	9.98	2.00	mg/kg dr D				
Zinc		7440-66-6	643	20.0	9.98	mg/kg dr D				
Lab Sample Name:	C161105-11	Sampl	e No: A8M5	5-2653		Sample Date: 9/29/	2016 4:00:00 PI	M		
Location	EG2				Matrix Ty	pe: Solid (dry wt basis)			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Lab Units Qualifier	Validation Qualifier	Validation Notes		
Aluminum		7429-90-5	16100	49.8	19.9	mg/kg dr D				
Beryllium		7440-41-7	<4.98	4.98	0.997	mg/kg dr U	U			
Calcium		7440-70-2	2310	249	99.7	mg/kg dr D				
Iron		7439-89-6	37500	249	99.7	mg/kg dr D				
Magnesium		7439-95-4	7800	249	99.7	mg/kg dr D				
Manganese		7439-96-5	1650	4.98	1.99	mg/kg dr D				
Silica (SiO2)		763-18-69	7150	997	249	mg/kg dr D				
Strontium		7440-24-6	15.1	9.97	1.99	mg/kg dr D				
Zinc		7440-66-6	333	19.9	9.97	mg/kg dr D				
Lab Sample Name:	C161105-12	Sampl	e No: A8M5	5-2654		Sample Date: 9/29/	2016 3:30:00 PI	M		
Location	EG2A				Matrix Ty	pe: Solid (dry wt basis)			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Lab Units Qualifier	Validation Qualifier	Validation Notes		
Aluminum		7429-90-5	13900	49.8	19.9	mg/kg dr D				
Beryllium		7440-41-7	<4.98	4.98	0.996	mg/kg dr U	U			
Calcium		7440-70-2	1490	249	99.6	mg/kg dr D				
Iron		7439-89-6	35000	249	99.6	mg/kg dr D				
Magnesium		7439-95-4	5470	249	99.6	mg/kg dr D				
Manganese		7439-96-5	2710	4.98	1.99	mg/kg dr D				
Silica (SiO2)		763-18-69	7140	996	249	mg/kg dr D				
Strontium		7440-24-6	12.1	9.96	1.99	mg/kg dr D				
Zinc		7440-66-6	380	19.9	9.96	mg/kg dr D				

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Silica (SiO2)

Strontium

Zinc

Lab Sample Name: C161105-13 **Sample No:** A8M5-2655 **Sample Date:** 9/29/2016 1:00:00 PM Location EG3A Matrix Type: Solid (dry wt basis) Analyte CAS No Result Sample Sample Validation Validation Result Lab Value Adjusted Adjusted Units Qualifier Qualifier **Notes MDL CRQL** Aluminum 7429-90-5 14200 50.2 20.1 mg/kg dr D Bervllium 7440-41-7 < 5.02 5.02 1.00 U U mg/kg dr Calcium 7440-70-2 2490 251 100 mg/kg dr D 251 Iron 7439-89-6 53200 100 mg/kg dr D Magnesium 7439-95-4 7940 251 100 mg/kg dr D Manganese 7439-96-5 1880 5.02 2.01 mg/kg dr D Silica (SiO2) 251 763-18-69 6630 1000 mg/kg dr D Strontium 7440-24-6 12.1 10.0 2.01 mg/kg dr D Zinc 7440-66-6 291 20.1 10.0 mg/kg dr Lab Sample Name: C161105-14 Sample No: A8M5-2656 **Sample Date:** 9/28/2016 4:15:00 PM Location EG5 Matrix Type: Solid (dry wt basis) CAS No Result Analyte Sample Sample Validation Validation Result Lab Value Adjusted Adjusted Qualifier Qualifier Units **Notes CRQL MDL** Aluminum 7429-90-5 12100 50.1 20.0 mg/kg dr D Beryllium 7440-41-7 1.03 5.01 1.00 JD mg/kg dr J Calcium 7440-70-2 2100 251 100 mg/kg dr D Iron 7439-89-6 50400 251 100 mg/kg dr D 7439-95-4 6200 251 100 Magnesium mg/kg dr D 7439-96-5 4770 5.01 2.00 Manganese mg/kg dr D Silica (SiO2) 763-18-69 6500 1000 251 mg/kg dr D 34.5 10.0 Strontium 7440-24-6 2.00 mg/kg dr D Zinc 1140 20.0 7440-66-6 10.0 mg/kg dr Lab Sample Name: C161105-15 Sample No: A8M5-2657 **Sample Date:** 9/29/2016 4:35:00 PM Location M12 Matrix Type: Solid (dry wt basis) CAS No Analyte Result Sample Sample Result Lab Validation Validation Value Adjusted Adjusted Qualifier Qualifier Units **Notes** MDL **CRQL** Aluminum 7429-90-5 9800 50.0 20.0 mg/kg dr D U Beryllium 7440-41-7 < 5.00 5.00 0.999 U mg/kg dr 7440-70-2 3170 250 99.9 Calcium mg/kg dr D 250 Iron 7439-89-6 36900 99.9 mg/kg dr D Magnesium 7439-95-4 4760 250 99.9 mg/kg dr D Manganese 7439-96-5 3060 5.00 2.00 mg/kg dr D

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6750

37.7

372

763-18-69

7440-24-6

7440-66-6

999

9.99

20.0

250

2.00

9.99

mg/kg dr

mg/kg dr

mg/kg dr

D

D

Lab Sample Name:	C161105-16 Sample No: A8M5-2658				Sample Date: 9/28/2016 4:30:00 PM					
Location	M14				Matrix Type: Solid (dry wt basis)					
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Lab Units Qualifier	Validation Qualifier	Validation Notes		
Aluminum		7429-90-5	5950	50.1	20.1	mg/kg dr D				
Beryllium		7440-41-7	< 5.01	5.01	1.00	mg/kg dr U	U			
Calcium		7440-70-2	265	251	100	mg/kg dr D				
Iron		7439-89-6	32900	251	100	mg/kg dr D				
Magnesium		7439-95-4	2430	251	100	mg/kg dr D				
Manganese		7439-96-5	182	5.01	2.01	mg/kg dr D				
Silica (SiO2)		763-18-69	5190	1000	251	mg/kg dr D				
Strontium		7440-24-6	60.2	10.0	2.01	mg/kg dr D				
Zinc		7440-66-6	55.5	20.1	10.0	mg/kg dr D				
Lab Sample Name:	C161105-17	Sample N	o: A8M	5-2659		Sample Date: 9/27/	2016 5:30:00 PI	M		
Location	M24D				Matrix Ty	pe: Solid (dry wt basis	s)			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Lab Units Qualifier	Validation Qualifier	Validation Notes		
Aluminum		7429-90-5	13500	49.9	19.9	mg/kg dr D				
Beryllium		7440-41-7	1.22	4.99	0.997	mg/kg dr JD	J			
Calcium		7440-70-2	3700	249	99.7	mg/kg dr D				
Iron		7439-89-6	24900	249	99.7	mg/kg dr D				
Magnesium		7439-95-4	3510	249	99.7	mg/kg dr D				
Manganese		7439-96-5	8670	4.99	1.99	mg/kg dr D				
Silica (SiO2)		763-18-69	7870	997	249	mg/kg dr D				
Strontium		7440-24-6	34.5	9.97	1.99	mg/kg dr D				
Zinc		7440-66-6	5260	19.9	9.97	mg/kg dr D				
Lab Sample Name:	C161105-18	Sample N	No: A8M	5-2660		Sample Date: 9/27/	2016 5:00:00 PI	M		
Location	M25				Matrix Ty	pe: Solid (dry wt basis	s)			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Lab Units Qualifier		Validation Notes		
Aluminum		7429-90-5	9470	50.3	20.1	mg/kg dr D				
Beryllium		7440-41-7	< 5.03	5.03	1.01	mg/kg dr U	U			
Calcium		7440-70-2	4330	251	101	mg/kg dr D				
Iron		7439-89-6	13200	251	101	mg/kg dr D				
Magnesium		7439-95-4	3060	251	101	mg/kg dr D				
Manganese		7439-96-5	773	5.03	2.01	mg/kg dr D				
Silica (SiO2)		763-18-69	8230	1010	251	mg/kg dr D				
Strontium		7440-24-6	29.5	10.1	2.01	mg/kg dr D				
Zinc		7440-66-6	149	20.1	10.1	mg/kg dr D				

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Zinc

C161105-19 Lab Sample Name: **Sample No:** A8M5-2661 Sample Date: 9/28/2016 9:35:00 AM Location M26B Matrix Type: Solid (dry wt basis) Analyte CAS No Result Sample Sample Validation Validation Result Lab Value Adjusted Adjusted Units Qualifier Qualifier **Notes MDL CRQL** Aluminum 7429-90-5 5880 50.0 20.0 mg/kg dr D Bervllium 7440-41-7 < 5.00 5.00 1.00 U U mg/kg dr Calcium 7440-70-2 4230 250 100 mg/kg dr D 250 Iron 7439-89-6 12100 100 mg/kg dr D Magnesium 7439-95-4 4000 250 100 mg/kg dr D Manganese 7439-96-5 1120 5.00 2.00 mg/kg dr D Silica (SiO2) 250 763-18-69 5280 1000 mg/kg dr D Strontium 7440-24-6 20.5 10.0 2.00 mg/kg dr D Zinc 7440-66-6 294 20.0 10.0 mg/kg dr Lab Sample Name: C161105-20 Sample No: A8M5-2662 **Sample Date:** 9/27/2016 3:00:00 PM Location M27 Matrix Type: Solid (dry wt basis) CAS No Result Analyte Sample Sample Validation Validation Result Lab Value Adjusted Adjusted Qualifier Qualifier Units **Notes CRQL MDL** 7340 Aluminum 7429-90-5 49.5 19.8 mg/kg dr D Beryllium 7440-41-7 <4.95 4.95 0.991 U U mg/kg dr Calcium 7440-70-2 1050 248 99.1 mg/kg dr D Iron 7439-89-6 43000 248 99.1 mg/kg dr D 7439-95-4 2910 248 99.1 Magnesium mg/kg dr D 7439-96-5 4.95 1.98 Manganese 856 mg/kg dr D Silica (SiO2) 763-18-69 4610 991 248 mg/kg dr D 40.4 9.91 1.98 Strontium 7440-24-6 mg/kg dr D Zinc 310 7440-66-6 19.8 9.91 mg/kg dr Lab Sample Name: C161105-21 Sample No: A8M5-2663 **Sample Date:** 9/28/2016 2:15:00 PM Location PWMLP1 Matrix Type: Solid (dry wt basis) CAS No Analyte Result Sample Sample Result Lab Validation Validation Value Adjusted Adjusted Qualifier Qualifier Units **Notes** MDL **CRQL** Aluminum 7429-90-5 3110 49.1 19.6 mg/kg dr D 4.91 U Beryllium 7440-41-7 <4.91 0.981 U mg/kg dr 7440-70-2 8780 245 Calcium 98.1 D mg/kg dr 245 Iron 7439-89-6 50400 98.1 mg/kg dr D Magnesium 7439-95-4 2090 245 98.1 mg/kg dr D Manganese 7439-96-5 5190 4.91 1.96 mg/kg dr D Silica (SiO2) 981 245 763-18-69 3950 mg/kg dr D Strontium 7440-24-6 21.0 9.81 1.96 D mg/kg dr

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19.6

9.81

mg/kg dr

4380

7440-66-6

Analysis Method TM_Mercury 7473

Lab Sample Name:	C161105-01	Sampl	e No: A8M	5-2643		Sample D	ate: 9/27/2	2016 10:00:00	AM
Location	A34				Matrix Ty	pe: Soil			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Mercury		7439-97-6	4.441	0.020	0.010	mg/kg		J	H, *III
Lab Sample Name:	C161105-02	Sampl	e No: A8M5	5-2644		Sample D	ate: 9/29/2	016 8:30:00 A	M
Location	A41A				Matrix Ty	pe: Soil			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Mercury		7439-97-6	0.030	0.019	0.010		dr D	J	H, R
Lab Sample Name:	C161105-03	Sampl	e No: A8M	5-2645		Sample D	ate: 9/27/2	2016 10:25:00	AM
Location	A68				Matrix Ty	pe: Soil			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Mercury		7439-97-6	0.064	0.019	0.010	mg/kg	dr D	J	H, R
Lab Sample Name:	C161105-04	Sampl	e No: A8M	5-2646		Sample D	ate: 9/29/2	2016 2:15:00 PI	M
Location	CC18B				Matrix Ty	pe: Soil			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Mercury		7439-97-6	0.085	0.019	0.010	mg/kg	dr D	J	H, R
Lab Sample Name:	C161105-05	Sampl	e No: A8M	5-2647		Sample D	ate: 9/28/2	2016 5:10:00 PI	М
Location	CC21D				Matrix Ty	pe: Soil			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Mercury		7439-97-6	0.047	0.019	0.010	mg/kg	dr D	J	H, R
Lab Sample Name:	C161105-06	Sampl	e No: A8M	5-2648		Sample D	ate: 9/29/2	2016 12:00:00 I	PM
Location	CC24C				Matrix Ty	pe: Soil			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Mercury		7439-97-6	0.087	0.020	0.010	mg/kg	dr D	J	H, R
Lab Sample Name:	C161105-07	Sampl	e No: A8M	5-2649		Sample D	ate: 9/29/2	2016 9:15:00 A	M
Location	CC25				Matrix Ty	pe: Soil			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Mercury		7439-97-6	0.120	0.020	0.010	mg/kg	dr D	J	H, R
Lab Sample Name:	C161105-08	Sampl	e No: A8M	5-2650		Sample D	ate: 9/28/2	016 4:20:00 PI	M
Location	CC26				Matrix Ty	pe: Soil			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Mercury		7439-97-6	0.164	0.020	0.010	mg/kg	dr D	J-	Н
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 Lab Sample Name:
 C161105-09
 Sample No:
 A8M5-2651
 Sample Date:
 9/28/2016 8:48:00 AM

Lab Sample Name:	C161105-09	Sampl	le No: A8M5	5-2651		Sample D	ate: 9/28/2	016 8:48:00 A	M
Location	CC38				Matrix Ty	pe: Soil			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Mercury		7439-97-6	0.077	0.020	0.010	mg/kg	dr D	J	H, R
Lab Sample Name:	C161105-10	Sampl	le No: A8M5	5-2652		Sample D	oate: 9/28/2	016 10:40:00 A	AM
Location	CC38D				Matrix Ty	pe: Soil			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Mercury		7439-97-6	0.096	0.020	0.010	mg/kg	dr D	J	H, R
Lab Sample Name:	C161105-11	Sampl	le No: A8M5	5-2653		Sample D	ate: 9/29/2	016 4:00:00 PI	M
Location	EG2				Matrix Ty	pe: Soil			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Mercury		7439-97-6	0.061	0.019	0.010	mg/kg	dr D	J	H, R
Lab Sample Name:	C161105-12	Sampl	le No: A8M5	5-2654		Sample D	ate: 9/29/2	016 3:30:00 PI	M
Location	EG2A				Matrix Ty	pe: Soil			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units	Lab Qualifier		Validation Notes
Mercury		7439-97-6	0.044	0.019	0.010	mg/kg	dr D	J	H, R
Lab Sample Name:	C161105-13	Sampl	le No: A8M5	5-2655		Sample D	oate: 9/29/2	016 1:00:00 PI	М
Location	EG3A				Matrix Ty	pe: Soil			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Mercury		7439-97-6	0.129	0.020	0.010		dr D	J	H, R
Lab Sample Name:	C161105-14	Sampl	le No: A8M5	5-2656		Sample D	ate: 9/28/2	016 4:15:00 PI	M
Location	EG5				Matrix Ty	pe: Soil			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Mercury		7439-97-6	0.087	0.020	0.010	mg/kg	dr D	J	H, R
Lab Sample Name:	C161105-15	Sampl	le No: A8M5	5-2657		Sample D	oate: 9/29/2	016 4:35:00 PI	M
Location	M12				Matrix Ty	pe: Soil			
Analyte		CAS No	Result Value	Sample Adjusted CRQL	Sample Adjusted MDL	Result Units		Validation Qualifier	Validation Notes
Mercury		7439-97-6	0.077	0.020	0.010	mg/kg	dr D	J	H, R
Lab Sample Name:	C161105-16	Sampl	le No: A8M5	5-2658		Sample D	oate: 9/28/2	016 4:30:00 PI	M
Location	M14				Matrix Ty	pe: Soil			
Analyte		CAS No	Result Value	Sample Adjusted	Sample Adjusted	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
				CRQL	MDL				

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Lab Sample Name: C161105-17 **Sample No:** A8M5-2659 **Sample Date:** 9/27/2016 5:30:00 PM Location M24D Matrix Type: Soil Analyte CAS No Result Sample Sample Result Lab Validation Validation Value Adjusted Adjusted Qualifier Qualifier Notes Units **MDL CRQL** Mercury 7439-97-6 0.077 0.024 0.012 mg/kg dr D H, R C161105-18 A8M5-2660 **Sample Date:** 9/27/2016 5:00:00 PM Lab Sample Name: Sample No: Location M25 Matrix Type: Soil Analyte CAS No Result Sample Sample Validation Validation Result Lab Adjusted Value Adjusted Units Qualifier Qualifier **Notes CROL** MDL 0.028 0.014 Mercury 7439-97-6 0.044 mg/kg dr H. R Sample Date: 9/28/2016 9:35:00 AM Lab Sample Name: C161105-19 Sample No: A8M5-2661 Location M26B Matrix Type: Soil CAS No Sample Analyte Result Sample Result Lab Validation Validation Value Adjusted Adjusted Units **Qualifier** Qualifier **Notes CRQL MDL** 0.010 Mercury 7439-97-6 0.030 0.020 mg/kg dr D H, R Lab Sample Name: C161105-20 Sample No: A8M5-2662 **Sample Date:** 9/27/2016 3:00:00 PM Location M27 Matrix Type: Soil Analyte CAS No Result Sample Sample Validation Validation Result Lab Value Adjusted Adjusted Qualifier Qualifier Notes Units **MDL CRQL** Mercury 7439-97-6 0.094 0.019 0.010 mg/kg dr D Н Sample No: A8M5-2663 C161105-21 **Sample Date:** 9/28/2016 2:15:00 PM **Lab Sample Name:** PWMLP1 Location Matrix Type: Soil Analyte CAS No Result Sample Sample Result Lab Validation Validation Value Adjusted Adjusted Units Qualifier **Oualifier** Notes MDL **CRQL** 0.010 Mercury 7439-97-6 0.508 0.020 H

mg/kg dr D

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